UNITED STATES PATENT AND TRADEMARK OFFICE

NOTICE OF ALLOWANCE AND FEE(S) DUE

7590   09/24/2008

PATTON BOGGS LLP
2550 M Street, NW
Washington, DC 20037-1350

EXAMINER
LIN, KENNY S

ART UNIT	PAPER NUMBER
2152	

DATE MAILED: 09/24/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,777	09/10/2003	Gene Savchuk	20501.802	4073

TITLE OF INVENTION: HIGH-PERFORMANCE NETWORK CONTENT ANALYSIS PLATFORM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	$720	$300	$0	$1020	12/24/2008

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: <u>Mail</u>

Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

or <u>Fax</u> (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

7590   09/24/2008

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Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

_____ (Depositor's name)

_____ (Signature)

_____ (Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,777	09/10/2003	Gene Savchuk	20501.802	4073

TITLE OF INVENTION: HIGH-PERFORMANCE NETWORK CONTENT ANALYSIS PLATFORM

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nonprovisional	YES	$720	$300	$0	$1020	12/24/2008

EXAMINER	ART UNIT	CLASS-SUBCLASS
LIN, KENNY S	2152	709-224000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,

(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 _____

2 _____

3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE   (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

☐ Issue Fee

☐ Publication Fee (No small entity discount permitted)

☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (**Please first reapply any previously paid issue fee shown above**)

☐ A check is enclosed.

☐ Payment by credit card. Form PTO-2038 is attached.

☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)

☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____   Date _____

Typed or printed name _____   Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.   OMB 0651-0033   U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,777	09/10/2003	Gene Savchuk	20501.802	4073

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7590	09/24/2008		LIN, KENNY S

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DATE MAILED: 09/24/2008

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 867 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 867 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.

	Application No.	Applicant(s)
Notice of Allowability	10/658,777	SAVCHUK, GENE
	Examiner	Art Unit	
	KENNY S. LIN	2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *7/29/2008*.

2. ☒ The allowed claim(s) is/are *15-17, 20, 23-36 now renumbered as 1-18*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None   of the:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of

        Paper No./Mail Date _____ .

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date *4/28/2008*

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application

6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☐ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

/Kenny S Lin/
Primary Examiner, Art Unit 2152

DETAILED ACTION

1.   Claims 15-17, 20, 23-36 are presented for examination. Claims 1-14, 18-19 and 21-22

are canceled.

2.   The IDS submitted on 4/28/2008 are considered.

EXAMINER'S AMENDMENT

3.   An examiner's amendment to the record appears below. Should the changes and/or

additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR

1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the

payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with

Mathew Laskoski, Reg. No. 55,360, on September 18, 2008.

4.   The application has been amended as follows:

1. - 14. (Canceled)

15.   (Currently Amended) A method comprising:
receiving network data;
processing the network data at one or more decoders to create input data for applying at
least multi-dimensional content profiling;

> **Deleted:** a decoder chain

preventing, by a processor, through the network data, leaks of information by at least

applying the multi-dimensional content profiling; and

     wherein the multi-dimensional content profiling comprises:

          loading one or more profiles, wherein the one or more profiles each comprise an

               expected set of statistical characteristics of data;

          continuously receiving the input data from the one or more decoders;

          determining a probabilistic measure of membership of the input data relative to the

               one or more profiles;

          comparing the probabilistic measure with a threshold requirement for each of the

               one or more profiles; and

          preventing leaks of the information if the probabilistic measure meets the threshold

               requirement

| | **Deleted:** decoder chain |

| | **Deleted:** generating a reactive measure if the probabilistic measure meets the threshold requirement |

    16.   (Original) The method of claim 15, wherein the information includes a digital asset.

    17.   (Original) The method of claim 15, wherein the multi-dimensional content profiling

takes into account the structure of the information.

    18.   (Canceled)

    19.   (Canceled)

    20.   (Currently Amended) A machine-readable storage medium having encoded

information, which when read and executed by a machine causes a method comprising:

     receiving network data;

     processing the network data at one or more decoders to create input data for applying at

least multi-dimensional content profiling;

     preventing, through the network data, leaks of information by at least applying multi-

dimensional content profiling; and

| | **Deleted:** a decoder chain |

wherein the multi-dimensional content profiling comprises:

    loading one or more profiles, wherein the one or more profiles each comprise an

        expected set of statistical characteristics of data;

    continuously receiving the input data from the one or more decoders;

    determining a probabilistic measure of membership of the input data relative to the

        one or more profiles;

    comparing the probabilistic measure with a threshold requirement for each of the

        one or more profiles; and

    preventing leaks of the information if the probabilistic measure meets the threshold

        requirement

Deleted: decoder chain

Deleted: generating a reactive measure if the probabilistic measure meets the threshold requirement

21.   (Canceled)

22.   (Canceled)

23.   (Currently Amended) An apparatus comprising:

a receiver to receive network data;

a processor, coupled to the receiver, to prevent, through the network data, leaks of

information by at least applying multi-dimensional content profiling, wherein the processor

processes the network data at one or more decoders to create input data for applying at least the

multi-dimensional content profiling;

Deleted: a decoder chain

    the multi-dimensional content profiling comprising:

        loading one or more profiles, wherein the one or more profiles each comprise an

            expected set of statistical characteristics of data;

        continuously receiving the input data from the one or more decoders;

        determining a probabilistic measure of membership of the input data relative to the

            one or more profiles;

        comparing the probabilistic measure with a threshold requirement for each of the

            one or more profiles; and

Deleted: decoder chain

preventing leaks of the information if the probabilistic measure meets the threshold
requirement.

24.   (Previously Presented) The method of claim 15, wherein processing the network data
at the decoder chain comprises extracting data by removing one or more layers of content encoding
selected from the group consisting of common compression, aggregation, file formats, encoding
schemas, and combinations thereof.

25.   (Previously Presented) The method of claim 15, further comprising creating the
profile by:

loading positive training sets of documents;

representing each document from the positive training sets of documents as a point in multi-
dimensional space;

separating the individual points in the multi-dimensional space with a set of hyperplanes
wherein the set of hyperplanes effectively separate the multi-dimensional space into regions
representing the positive training sets of documents; and

converting the set of hyperplanes into the profile.

26.   (Previously Presented) The method of claim 25, further comprising creating the
profile by:

loading negative training sets of documents;

representing each document from the negative training sets of documents as a point in
multi-dimensional space;

separating the individual points in the multi-dimensional space with a set of hyperplanes
wherein the set of hyperplanes effectively separate the multi-dimensional space into regions
representing the negative training sets of documents; and

converting the set of hyperplanes into the profile.

27.   (Previously Presented) The method of claim 15, wherein determining the probabilistic measure comprises updating one or more counters in a predetermined order, calculating values of output dimensions based on the one or more counters, and calculating an output score based on the output dimensions wherein the output score represents the probabilistic measure.

28.   (Previously Presented) The method of claim 15, wherein the preventing operates in real-time.

29.   (Previously Presented) The method of claim 15, further comprising terminating sessions with leaks of information before the network data is fully transferred.

30.   (Previously Presented) The method of claim 15, further comprising preventing, through the network data, leaks of information by also applying keyword scanning.

31.   (Currently Amended) The machine-readable storage medium of claim 20, wherein the profile is created by:
        loading positive training sets of documents;
        representing each document from the positive training sets of documents as a point in multi-dimensional space;
        separating the individual points in the multi-dimensional space with a set of hyperplanes wherein the set of hyperplanes effectively separate the multi-dimensional space into regions representing the positive training sets of documents; and
        converting the set of hyperplanes into the profile.

32.   (Currently Amended) The machine-readable storage medium of claim 31, wherein the profile is created by:
        loading negative training sets of documents;
        representing each document from the negative training sets of documents as a point in multi-dimensional space;

separating the individual points in the multi-dimensional space with a set of hyperplanes

wherein the set of hyperplanes effectively separate the multi-dimensional space into regions

representing the negative training sets of documents; and

converting the set of hyperplanes into the profile.

33.   (Currently Amended) The machine-readable storage medium of claim 20, further

comprising receiving the network data at a decoder chain prior to implementing the multi-

dimensional content profiling, wherein the decoder chain extracts data by removing one or more

layers of content decoding selected from the group consisting of common compression, aggregation,

file formats, encoding schemas, and combinations thereof.

34.   (Currently Amended) The machine-readable storage medium of claim 20, wherein

the multi-dimensional content profiling further comprises establishing a connection with an alert

module prior to sending the reactive measure.

35.   (Currently Amended) The machine-readable storage medium of claim 20, wherein

the calculating the set of output dimensions comprises determining one or more values for each

counter and combining the one or more values for each counter to create the set of output

dimensions.

36.   (Previously Presented) The apparatus of claim 23, wherein the calculating an output

score is performed for each of the one or more profiles.

Amendment to the specification (to overcome 101):

Amending the page 74, line 15 paragraph starting with "The foregoing presentation…" with the
following:

        A machine-readable medium may include encoded information, which when read and
executed by a machine causes, for example, the described embodiments (e.g., one or more
described methods). The machine-readable medium may include machine-readable storage

medium that store programmable parameters and may also store information including executable instructions, non- programmable parameters, and/or other data. The machine-readable storage medium may comprise read-only memory (ROM), random-access memory (RAM), nonvolatile memory, an optical disk, a magnetic tape, and/or magnetic disk. The machine-readable medium may further include machine readable transport medium, for example, a carrier wave modulated, or otherwise manipulated, to convey instructions that can be read, demodulated/decoded and execute by the machine (e.g., a computer). The machine may comprise one or more microprocessors, microcontrollers, and/or other arrays of logic elements.

Allowable Subject Matter

5.   Claims 15-17, 20, 23-36 are allowed.

Conclusion

6.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenny Lin whose telephone number is (571) 272-3968. The examiner can normally be reached on 8 AM to 5 PM Tue.-Fri. and every other Monday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on (571) 272-3913. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Kenny S Lin/
Primary Examiner, Art Unit 2152
September 24, 2008